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Conversazioni

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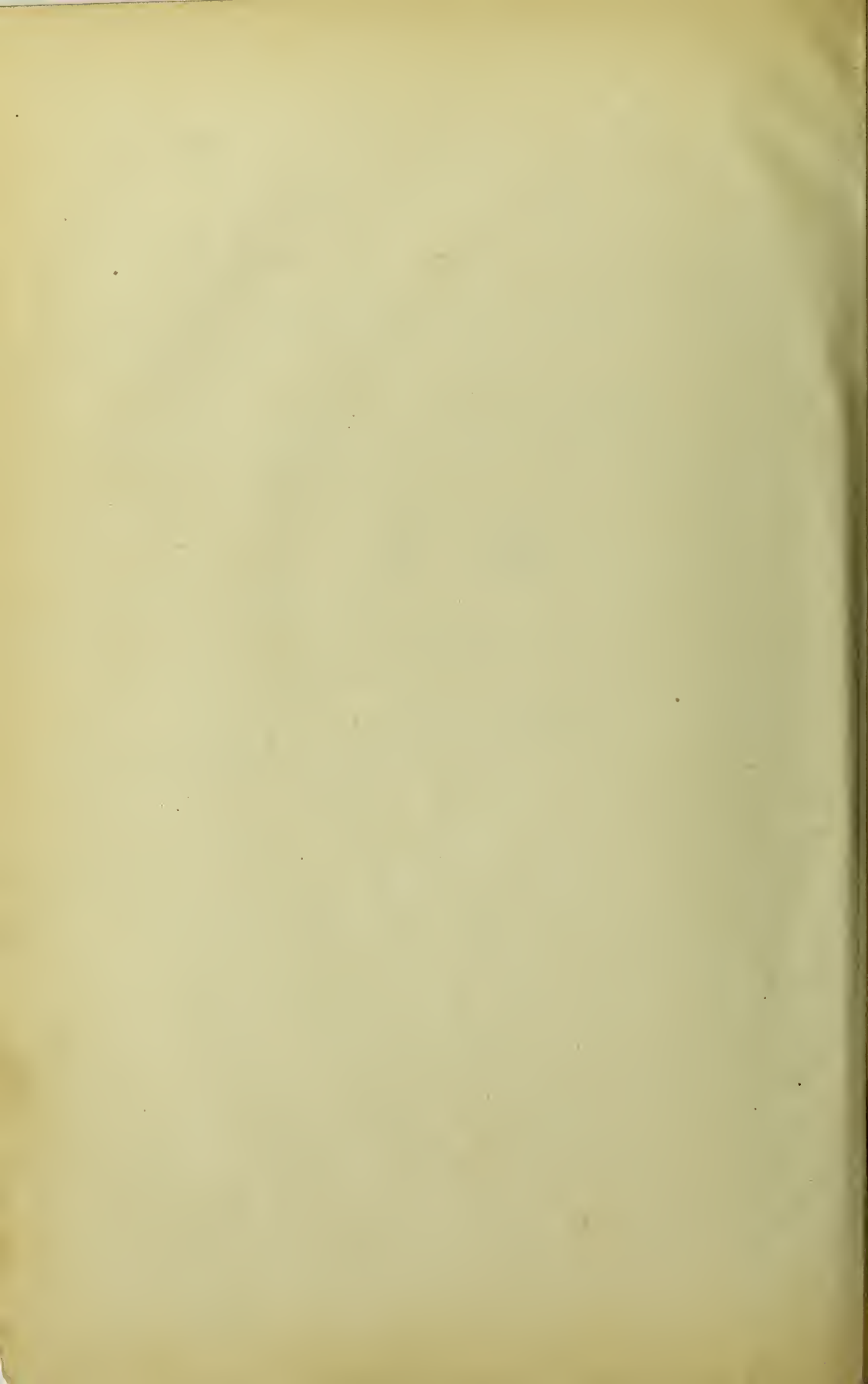
Belfast Clinical & Pathological Society

Third Session

1856

with

Dr Malcolm's Address



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*Manuscript Summary*

REPORT

OF THE

CONVERSAZIONE

OF

The Belfast Clinical and Pathological Society,

HELD

ON THE TERMINATION OF THE THIRD SESSION,

AT THE

CORN EXCHANGE HALL, APRIL 30, 1856,

WITH WHICH IS INCORPORATED

THE ADDRESS OF THE PRESIDENT.

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Belfast:

PRINTED AT "THE BELFAST DAILY MERCURY" OFFICE.

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1856.

THE BELFAST CLINICAL AND PATHOLOGICAL SOCIETY,

NUMBERING upwards of 120 Members, and now the largest Provincial Medical Association in Ireland, is distinguished by the following attractive features :—

1. The very moderate Annual SUBSCRIPTION.
  2. The Members' Privilege of receiving REPORTS of the Microscopical and Chemical Committee, on any morbid specimens sent.
  3. The Members' Privilege of receiving (after each Meeting) a Lithographed ABSTRACT of the Weekly Proceedings—and a Copy of the Annual TRANSACTIONS (postage being prepaid).
  4. The Members' Privilege of access to the Reference to any of the Subjects in the GENERAL NOTE-BOOK of the Society.
  5. The Members' Privilege of admitting Visitors—and inspecting the Contents of the PATHOLOGICAL MUSEUM of the Society.
  6. The Members' Privilege of VOTING for the Offices of PRESIDENT and VICE-PRESIDENTS (two of whom are NON-RESIDENT) annually, BY SEALED LETTER.
  7. The Members' Privilege of admitting Visitors to the ANNUAL CONVERSAZIONE held at the close of the Session
- All communications from Gentlemen intending to join this Body, to be addressed to

DR. MALCOLM,

81, YORK STREET, BELFAST,

*Gen. Corr. Sec.*

N.B.—The Session (1856-7) will be opened on the last Saturday in October proximo, at the General Hospital Belfast, under the Presidency of Dr. M'Gee.

# BELFAST

## CLINICAL AND PATHOLOGICAL SOCIETY.

THIRD SESSION, 1855-56.

### LIST OF MEMBERS.

#### I.—HONORARY.

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ROBERT W. SMITH, F.R.C.S.I., M.D., Prof. of Surgery, &c., T.C., Dublin.  
J. MOORE NELIGAN, Hon. M.D., T.C.D., Fell. King's and Queen's Coll. of Phys., Dublin.

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CAVAN..... Chas. Halpin, M.D.	LONDONDERRY T. H. Babington, M.D.	TYRONE..... H. Thompson, M.D.
DONEGAL .... R. Little, M.D.	LONDONDERRY J. C. L. Carson, M.D.	
FOREIGN .....	Fr. Berthold, M.D., Teplitz, Bohemia	

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Professor Ferguson, Q.C.B., V.P.	Mr. M'Cleery	Mr. Wales
Professor Gordon, Q.C.B.	Dr. M'Cormac	Mr. Warwick
Dr. Hanna	Dr. M'Gee, President-Elect	Dr. Wheeler

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aghalee..... Mr. Burton	Ballymoney .... Dr. Latham	Kells
ahoghill	" ..... " Taylor	Larne..... Mr. Ferris
antrim ..... Dr. Nixon	Bushmills..... Dr. J. Macaw	Lisburn..... Dr. Campbell
" ..... " Taggart	Carnmoney	" ..... " Musgrave
Ballinderry	Carrickfergus .. Dr. M'Gowan	Randalstown
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Ballyclare..... Dr. Clugstone	Crumlin ..... Dr. Hume	Templepatrick.. Dr. Graham
Ballymena .... Dr. Ross	Cushendall	Toomebridge
" ..... " Kidd	Dunmurry..... Dr. Playne	
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Crossmaglen	Middletown	Tandragee.... Dr. Patton
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Bailieborough  
Belturbet

Cavan (See Corr. Mem.)  
Cootehill

Swanlinbar

COUNTY DONEGAL.

Ballyshannon  
Bunrana  
Donegal

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Lifford (See Corr. Mem.)

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Ballynahinch Dr. Dickson  
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" " M'Clelland  
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Castlewellan  
Comber..... Mr. Frame  
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Donacloy..  
Donaghadee Dr. Catherwood  
Downpatrick Mr. Brabazon

Downpatrick .. Dr. Forde  
Dromara .....  
Dromore ..... Mr. Weir  
Dundonald .... Dr. M'Minn  
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Holywood..... Dr. Young, Council  
" " Greenfield  
Kilkeel..... Mr. Anderson  
Killileagh..... Dr. Shiel  
Kirkeubbin ....  
Loughbrickland  
Maghera ..... Mr. Devlin

Moirs .....  
Newry ..... Dr. Johnston  
Newcastle ... Dr. Smith  
" " Clarke  
 Newtownards Dr. Jamison  
Portaferry... Dr. Filson  
Rathfriland..  
Rosstrevor...  
Strangford... Dr. Knox  
Waringstown  
Warrenpoint.

COUNTY FERMANAGH.

Enniskillen (See Corr. Mem.)

Lisnakea

Newtownbutler

COUNTY LONDONDERRY.

Castledawson....  
Coleraine..... (See Corr. Mem.)  
Culmore..... Dr. Forsythe  
Kilrea.....

Londonderry (See Corresp. Mem.)  
Maghera .....  
Magherafelt .....

Moneymore .....  
Newtownlimavady  
Portglenone..... Mr. T. Madden

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Dundalk ..... Dr. Brunker  
" " Browne

Dundalk ..... Dr. Callan  
" " Pollock

Dunleer.....  
Drogheda .....

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Carrickmacross..  
Castleblayney....

Clones.....  
Monaghan .... (See Corr. Mem.)  
Newbliss.....

Rockecorry ....  
Smithborough..

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Aughnacloy.... Dr. W. Scott  
" " Blakely  
Caledon .....

Coalisland .... Mr. J. V. Bindon  
Cookstown.... Dr. Graves  
Dungannon ....

Fintona .....  
Omagh..... Dr. H. Thompson  
Strabane .....

ARMY.

Mr. Armstrong, R.N.D. Rifles  
Mr. Barnett, do.

Dr. Crothers, R.T. Artillery

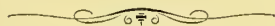
Dr. Maxwell, 2nd Foot

ENGLAND.

Windermere..... Dr. A. Johnston



# CONVERSAZIONE.



THE Second Conversazione of the Society was held on the 30th of April, 1856, in the Corn Exchange Hall, Belfast. The Members of the Society and Guests began to arrive at seven o'clock. p m.

The following is a complete list of the Gentlemen invited; and the Members present on the occasion:—

I. Arrott, Esq.  
 Rev. J. Anderson  
 Rev. W. Bruce  
 Rev. Dr. Bryce  
 Rev. John Barnett  
 Thomas Blain, LL.D.  
 W. Bottomley, Esq.  
 W. Brown, Esq.  
 John Bell, Esq.  
 R. Boag, Esq.  
 G. Bowles, Esq.  
 Rev. Dr. Cooke  
 Rev. T. Campbell  
 John Clarke, Esq., J.P.  
 W. Charley, Esq., J.P.  
 E. Coey, Esq.  
 Professor Craik  
 J. Croome, Esq., School of Design  
 J. Cantrell, Esq.  
 J. Coburn, Esq.  
 Lord Bishop of Down and Connor  
 Right Rev. Dr. Denvir, R.C.B.  
 W. Dunville, Esq.  
 J. Dyas, Esq.  
 Rev. Dr. Edgar  
 Professor Frings  
 S. G. Fenton, Esq., J.P.  
 Mons. J. Festu  
 Rev. Professor Gibson  
 S. G. Getty, Esq., Mayor  
 T. Garrett, Esq.  
 R. Grimshaw, Esq., D.L., J.P.  
 W. Girdwood, Esq.  
 John Godwin, Esq., C.E.  
 Edmund Getty, Esq.  
 James Girdwood, Esq.  
 James Grimshaw, Jun., Esq.  
 T. Gausson, Esq.  
 John Grattan, Esq.

Dr. Guy, 3rd West York Militia  
 Rev. Dr. Henry, President Q.C.  
 Rev. H. Henderson, Holywood  
 James Hamilton, Esq.  
 W. D. Henderson, Esq.  
 J. A. Henderson, Esq.  
 Samuel Hunter, Esq.  
 G. C. Hyndman, Esq.  
 Richard Hooke, Esq.  
 G. Heyn, Esq.  
 W. Horne, Esq.  
 Professor Hodges  
 Rev. W. Johnston  
 Rev. Mr. Jones  
 P. Keegan, Esq.  
 P. Keenan, Esq., Inspector N.S.  
 C. Lanyon, Esq., C.E.  
 J. Lynn, Esq., C.E.  
 F. H. Lewis, Esq.  
 Rev. T. Millar, Vicar  
 Rev. Dr. Morgan  
 W. H. Malcolm, Esq.  
 Dr. Mold, Londonderry Lt. Infantry  
 J. R. Musgrave, Esq.  
 Alexander Mitchell, Esq., C.E.  
 Jasper McAulay, Esq.  
 J. J. Murphy, Esq.  
 J. W. Murphy, Esq.  
 James Macadam, Sen., F.G.S.  
 Robert M'Adam, Esq.  
 James Macadam, Jun., Esq.  
 Lieut.-Col. M'Gee, 19th Regiment.  
 Rev. W. M'Ilwaine  
 Rev. D. M'Afee  
 Rev. Professor M'Cosh  
 Professor M'Dowel  
 T. M'Clure, Esq., J.P.  
 Rev. J. M'Naughtan  
 W. M'Kenna, Esq., V.S.

James M'Intyre, Esq.  
 W. M'Ilrath, Esq.  
 G. Murney, Esq.  
 H. M'Cracken, Esq.  
 J. M'Intosh, Esq.  
 Andrew Nicholl, Esq.  
 Rev. J. S. Porter  
 Rev. J. Porter  
 R. Patterson, Esq.  
 G. C. Pim, Esq.  
 Dr. Perry, 3d West York Militia  
 Thomas Pring, Esq.  
 Rev. J. Rodgers, Comber  
 J. Patterson, Esq., I.N.S.  
 Dr. Richardson, Staff, Surgeon  
 Rev. Professor Reichel  
 T. Ringland, Esq.  
 G. K. Smith, Esq.  
 James Simms, Esq.  
 Rev. I. Steen  
 G. Smyth, Esq., C.E.  
 J. M. Shaw, Esq.  
 Professor Stevelly, LL.D.  
 Dr. Skipton, Derry 4th Lt. Infantry  
 G. W. Strype, Esq., C.E.  
 J. Seed, Esq.  
 R. Seed, Esq.  
 Rev. J. Taylor  
 Professor W. Thompson  
 Professor Tait  
 W. Thompson, Esq.  
 Gordon A. Thompson, Esq.  
 James Thompson Esq., C.E.  
 A. O'D. Taylor, Esq.  
 W. Valentine, Esq.  
 E. Walkington, Esq.  
 R. Workman, Esq.  
 R. Young, Esq., C.E.

Of the Members of the Society, we observed present the following:—

Professor Andrews, Vice-President,  
 Queen's College  
 Professor Ferguson  
 " Dickie  
 " H. Stewart  
 Dr. M'Gee, President Elect  
 Dr. Malcolm, Ex-President  
 Dr. R. Stewart  
 Dr. Pirrie  
 Mr. Browne, R.N.  
 Dr. H. Purdon  
 Dr. M'Meehan,  
 Whitehouse,  
 Dr. MacLaughlin,  
 Lurgan,  
 Dr. Young, Holywood

Vice-Presidents

Dr. Russell, Bangor  
 Dr. Filson, Portaferry  
 Dr. Playne, Dunmurry  
 Dr. Halliday, Treasurer  
 Dr. Ross and  
 Mr. H. M. Johnston } Secretaries  
 Dr. Thomas Read  
 Dr. Drennan  
 Dr. Moore  
 Dr. Murney  
 Mr. Heard  
 Mr. Mulholland  
 Dr. Bryce  
 Dr. W. Aikin  
 Dr. Dill  
 Mr. Hanna

Mr. MacMullan  
 Dr. Murray, Ballymacarrett  
 Mr. Harkin  
 Dr. D. Murray  
 Mr. M'Cleery  
 Dr. Patterson  
 Dr. Smith  
 Dr. Stronge  
 Dr. Thomas Thompson  
 Dr. Wheeler  
 Mr. Wales  
 Mr. Warwick  
 Dr. Sheil, Killileagh  
 Dr. M'Gowan, Carrickfergus  
 Dr. M'Minn, Dundonald  
 Mr. H. Thompson, Ballylesson

The appearance which the room presented was impressive and pleasing. From the ceiling several flags depended, the French tricolor and the Union Jack being appropriately placed together in the most prominent position. The banners and flags of Turkey, Spain, Prussia, Russia, Greece, Mecklenburgh, and of the cities of Dantzic and Hamburg, were along the walls. The tables were conveniently disposed, so as to permit of promenading around each, and, altogether, the arrangements were excellent.

### STAND I.

One of the first objects which arrested our attention, on entering the room, was a stand, on which were displayed some admirable photographic views, taken in the Crimea, by Mr. Robertson. The clearness of outline and accuracy which all of these sun-pictures exhibited, were the theme of universal commendation. The Topographical views must be very accurate; but a group of the officers of the 19th Regiment, before Sebastopol, attracted more general interest, from the extraordinary fidelity with which it represented Colonel McGee, in his uniform, in the midst of his brother officers. Many, who had previously known the gallant colonel, recognised him at once, notwithstanding the change of costume, from the photographic miniature. Some of the best architectural photographs we have ever seen, were those of the Place de la Concorde, Notre Dame, and other views, sent by Mr. Pring. As illustrative of the advance of one of the collateral sciences, these pictures were well entitled to a place in the collection.

### TABLE I.

Near this portion of the room there was a splendid array of SURGICAL and PHILOSOPHICAL INSTRUMENTS, from the establishment of YOUNG, of Edinburgh, comprising all the latest inventions, and which we heard commended, by many professional gentlemen, for their excellence, as well as variety and moderate prices. The following is an imperfect list of the most esteemed and novel:—A Case of Instruments, which was specially fitted up for, and exhibited at, the great French Exposition of 1855 (these included, in particular, the designs of Professor Syme); Oberhauser's Microscope (£7), as recommended and employed by Professor Bennett, of Edinburgh; set of Syme's Perinæal Instruments; set of Wakely's Urethra Dilators; Dr. Gairdner's Model Post Mortem Case (2 guineas); Three sets of Minor Operating Cases (21s to 36s); Simpson's Bistoury Cachée for Incising os Uteri; Simpson's Incising Hook for Large Internal Uterine Tumours; Lallemand's Spermatorrhœa Instruments; Simpson's and Coxeter's Specula Vaginæ; Amputating Instruments, in Case; Mackenzie's Speculum Ani; Ear Specula (2s 6d to 14s); Simpson's and Zeigler's Midwifery Forceps; Simpson's Uterine Sound (7s); Simpson's and Killian's Pessaries; Zwank's (Hamburg) Hysterophor; Tonsillotome; Brises Pierres, or Lithotrites; Dupuytren's Double Bistoury Cachée, for Lithotomy; various Instruments for extracting

musket balls, by Spence, &c.; Toynbee's Artificial Membrana, Tympani. Serrephines; various Lithotomy Instruments; Simpson's Carbonic Acid Apparatus; Gooch's and Sabine's Polypus Tubes; Dr. Alexander Wood's Opiate Syringe, for Injecting Batty's Liquor into the Cellular Tissue; Porte Monnaie Pocket Case (14s); Barrel Injecting Syphon; Liston's Double Inclined Plane Splint, &c., &c.

### TABLE II.

A very good and well-displayed collection of similar Instruments, were also exhibited by our Townsman, Mr. THOMAS BELL, whose work will bear most favourable comparison with any specimens we have yet seen in this department.

### TABLE III.

Mr. WILLIAM M'KENNA, Veterinary Surgeon (for the first time, we believe, in this city), exhibited the following interesting collection of VETERINARY INSTRUMENTS and preparations, illustrative of hippopathology, &c. The following is a list of the principal:—

Hind and fore legs of the horse, the arteries and veins injected, and showing the nerves, tendons, and ligaments.

Injected fore leg, arteries, and veins, showing the nerves, various ligaments, interior of the joint, capsule, coffin and pastern joints.

Ligamentous preparations of the leg of the horse.

Injected leg, exhibiting a ruptured and re-united Suspensory ligament—commonly called "breaking down."

Preparations of the bones of the knee and hock of the horse, showing their articulations. Various morbid preparations of the bones of the foot and leg.

Preparations of the bones of the fore and hind legs of the ass.

Preparations of the cranium of the ass, with the names of the bones, &c., marked.

In appropriate proximity to this collection we noticed a full sized bust of the late Edward Coleman, Esq., Professor of the Royal Veterinary College, of London, as also the following volumes pertaining to the Veterinary Department, viz.:—

Coleman's Essay on Suspended Respiration; and his Treatise, with coloured plates, on the Foot of the Horse; the works of Charles Vial De Sainble, of France, the first Professor in the Royal Veterinary College, London; Markam's "Maister Peece, touching the Curing of all Diseases in Horses." This last work is curious and scarce, and is two hundred years old, having been published by *Wilson, London*, 1656:—Also, Professor Simmond on the age of the Ox, Sheep, and Pig; Percival's Anatomy of the Horse; Percival's (IV Vol.) Hippo-pathology; Bracy Clarke, F.L.S., on Hippodinia, and also Podophthora; Turner on the Foot of the Horse (or navicularthrititis and the use of the unilateral shoe); Skellet on the Cow, with excellent coloured plates on difficult parturition, &c. One Volume of the "Veterinarian;" Mahew on the Horse's Mouth;



coloured plates. Several coloured plates, by Vines, showing the stages of glanders and farcy. A coloured chart of the anatomy of the foot. A Veterinary Toxicological chart, by Professor Morton, R.V.C.

The following list comprised the Veterinary Instruments in Mr. McKenna's collection:—Set of Dental Instruments, with tooth rasps, &c., complete; Metallic wire for sutures, and a variety of needles for same; Various Trocars, with silver canulas, as used for horses and cattle; Patent back fleam, with pin cutter; (This has superseded the "bleeding stick.") Lancets, of different sizes and dimensions; Male and Female catheters for horses; Patent sliding seton needle ("This instrument is capable of overcoming any resistance without risk.") Box of various seton needles and Instruments for the operation of neurotomy, &c.; Probe-pointed bistouries, of different sizes and forms; The improved castrating knife, with the various clams used for castration; Set of cupping instruments, with exhausting spirit lamp; The balling gun, and Varnal's improved screw balling iron; Tobacco smoke enema apparatus; Read's Patent stomach pump, and enema syringe; The patent probang and cattle tube; The improved cradle for horse's neck; The sliding and other bronchotomy tube; Firing Irons, with shifting handles; Horse's feet, variously shod, showing the method which has been adopted to preserve the foot and overcome the effects of diseases. A great variety of pattern shoes, including Coleman's expansion shoe.

TABLE IV.

Upon an adjoining table, we observed a novel piece of mechanism, designed and constructed by Mr. G. H. STRYPE, C.E., which is used in connexion with the camera, for the purpose of controlling the duration of exposure in taking photographic portraits. This Apparatus consists of a small clock, with two indices, the longer one revolving in one minute, and the other in ten minutes. In using it the clock is stopped with the long index at as many seconds short of 60, or the vertical position, as the time of exposure requires. There are two spring doors, one for opening and the other for closing up the lens; these are held by detents, and, when the operator is ready, he touches a small lever, upon which the door opens and the clock commences action, and on the arrival of the index at 60, the clock releases the detent, which allows the second door to close the camera. The advantage attending the use of this instrument is, that the attention of the operator is not diverted by watching the time, but may be exclusively devoted to taking the precise moment for catching any expression of his sitter, with the certainty that the operation will cease just when it ought to do, without his interference; and the length of exposure on which so much of the success of the picture depends, will be exactly what he has assigned for it. By another part of the contrivance, not only the closing of the lens, but also its primary opening, is self-acting; the time that elapses between the starting of the clock and the opening of the lens, as well as the duration of exposure, being capable of regulation at will. An

operator is thus enabled to take his own portrait without assistance. The time of exposure may be any length within the limit of ten minutes, to an accuracy, in every case, of a quarter of a second.

Mr. Strype also contributed a powerful MAGNETO-ELECTRIC MACHINE, of his own design and manufacture, which he worked and explained during the evening. The peculiarities of this machine are the great number of variations of the electric current it is capable of yielding, the shocks being of any degree of intensity required. It also produces a constant current for chemical decompositions, of four different degrees of quantity and intensity, and some specimens of electro-silvering performed by this machine were shown. The value of the magneto-electric machine for medical purposes, above the galvanic apparatus in common use, is, that the former is at all times ready for immediate use, and the annoyance and trouble of cleaning and charging batteries is avoided.

The same Gentleman exhibited a design for a colossal magneto-electric machine, which is now in course of construction.

The following particulars will show the immense size of this machine:—

Number of compound magnets of 6 bars each,.....	160
Number of helices of wire, each containing 500 feet,.....	608
Total length of wire in helices,.....	57 miles.
Weight of wire,.....	1,000 lbs.
Weight of magnets,.....	5,000 "
Weight of brass works,.....	3,360 "
Total weight of machine complete,.....	8 tons.
Estimated cost £2,500	

The machine will be about 12 feet long, 5½ feet high, and 5 feet wide, and will be driven by a steam engine of four horses' power.

MR. JAMES CUMING, North Street, exhibited excellent galvanic and electric machines, and other philosophical instruments of the most approved designs.

## STAND II.

One of the most attractive, and, at the same time interesting, collections it was our privilege to see, was admirably arranged upon a large and handsome pyramidal stand, whose sides were crowded with choice specimens of the MINERAL and VEGETABLE MATERIA MEDICA. It was the joint-contribution of the Messrs. Dyas & Cantrell, the Proprietors of the Belfast Apothecaries' Hall, and Mr. Walkington.

MESSRS. DYAS & CANTRELL's, in particular, attracted general notice, and comprised a complete assorted variety of medical appliances, and medicinal extracts of great rarity, some of them having been introduced for the first time in Belfast to the profession. The scarce and costly alkaloids were arranged in their therapeutical order. The following were among the most interesting:—

*Strychnine*, of recent and painful notoriety, the active principle of the *Nux Vomica*.

*Digitaline*, from the *Digitalis Purpurea*, or common Foxglove of our own country.

*Aconitine*, from the *Aconitum Napellus*, or Monkshood, one of the most deadly of all poisons:

the one-fiftieth part of a grain is stated to have endangered human life.

*Conia*, from the *Conium Maculatum*, or common Hemlock of our fields, the only *liquid* alkaloid known; also, a destructive agent of great virulence; considered to be the poison by which Socrates died.

*Thein* and *Caffein* represent the bases of those domestic comforts, tea and coffee; a few grains only of their alkaloids are procurable from a pound of the respective articles in their ordinary state.

The foregoing are merely particularized from their interest.

The numerous and useful Domestic and Surgical appliances in vulcanized India Rubber, such as elastic stockings, knee-caps, &c., for varicose veins, weak and sprained limbs, &c.; also, air and hot water cushions, urinals, lavement apparatus, and every variety of toilet and domestic appliance necessary for the invalid.

*Gazogenes*, in working order, for making soda water, lemonade, and other cooling beverages, now in such demand.

*Feeding Bottles*, on a new and improved principle; *Respirators*, of a light and simple construction; a desideratum much required to supply the place of those intricate and expensive kinds in ordinary use.

In fact, this collection contained every useful requisite used by physicians and surgeons, with the principal drugs and chemicals in general use, and was much admired for its unique and comprehensive character.

The second collection comprised a well-arranged assortment of the MINERAL MEDICINAL PREPARATIONS. In connexion with each mineral, we noticed that a group of all the pharmaceutical preparations having it for their base were disposed; and thus at a glance were recognized the series of medicines corresponding to their respective minerals. The style, too, in which they were prepared and put up, reflected great credit on the "Belfast Apothecaries' Hall."

MR. WALKINGTON, now the oldest druggist firm in town, furnished, from his immense stock, a carefully selected series of VEGETABLE MEDICINAL PREPARATIONS, in the first or earliest stage of preparation. Tickets explanatory of their nativity and circumstances attendant on their introduction into practice, were appended to each article, and added much to the value of this collection.

TABLE V.

MESSRS GRATTAN & Co., Apothecaries and Chemists, supplied a select assortment of the pure Vegetable Alkaloids, and a few other organic principles, prepared by Messrs. Morson & Son, London, including Aconitine; Aloin; Atropine, and its Salts; Brucine; Caffæine; Cantharidine; Codia; Conia; Digitaline; Ergotine; Jalapine; Morphia, and its Salts; Narcotine; Quinia, and its Salts; Strychnia, and its Salts; Urea, &c., &c.

They likewise exhibited a series of Drugs and Chemicals, illustrative of the various prices at which articles may be had, to meet the wishes of purchasers who prefer *cheapness to quality*, such as Scammonies, from 5s. 6d. per lb. to 50s.; Rhubarbs, from 6d. per

lb. to 20s.; Musks, from 24s. per ounce to 74s.; Iodine and its Salts; Salts of Bismuth; Preparations of Sulphur, &c., manufactured especially for the *low priced* market, and only to be distinguished from the genuine by the educated eye or chemical and microscopical examination, although occasionally containing so much as 75 per cent. of inert or foreign material.

### STAND III.

A collection of FRAMED PORTRAITS of celebrated Irish Physicians and Surgeons, both ancient and modern, were exhibited by the President, as also a volume of portraits of living English Medical celebrities; but of the objects not strictly professional, which came under our eye, a volume of AUTOGRAPH LETTERS, the property of William H. Malcolm, Esq., seemed to us decidedly the most valuable and *recherche*. We observed many of the distinguished guests particularly noticing this unique volume, which contained the letters of many celebrated, remarkable and eminent persons, and formed altogether a highly valuable and interesting collection. We subjoin a list of the principal portion:—David Garrick—letter. General Washington—long letter, dated Mount Vernon, to Sir Thomas Newenham. Duke of Marlborough—letter. Robert Burns—the poem, "The bonnie lad that's far awa'," all in the poet's own handwriting. Lord Nelson—letter, dated from on board the *San Josef*, 1801. Napoleon I.—signature. Empress Josephine—letter. Edmund Kean—do. Right Hon. W. Pitt—do. Right Hon. Sir Robert Peel—do. Mr. Wilberforce—do. Daniel O'Connell—do. Richard Brinsley Sheridan—do. Lord Byron—promissory note. Cherubini—letter. Weber—do. Paganini—a few bars of music. Thomas Moore—letter. Sir John Moore—do. Marshal Ney—do. Duke of Wellington—letter to Right Hon. Robert Peel, 1823. Thomas Campbell—poem (all in the poet's handwriting). Barry Cornwall—(love song) do. Canova—letter. L. E. Landon—do. Jane Porter—do. Sir Thomas Lawrence—do. Edmund Burke—letter, dated Beconsfield, January 2, 1799. Wm. Wordsworth—do. Joseph Haydn—2 leaves of music; the great musician's signature appended. John Braham—letter. Lord Carlisle—autograph. Lord Gough—do. Alex. Pope—do. Laurence Sterne—do. General Bertrand—letter. W. L. Thackeray—do. Charles Lever—do. W. C. M. Cready—do. Sir de Lacy Evans—do. Mendelssohn—do. Joseph Hume—do. Charles Dickens—do. Sir R. Murchison—do. Sir Henry De la Beche—do. S. T. Coleridge—do. Sir T. N. Talfourd—sonnet. Lord Belfast—letter. Oliver Cromwell—signature to a commission in the Parliamentary army dated Whitehall, 28th May, 1655.

TABLE VI.

A number of trophies of travel, principally collected in Mexico, the contribution of Gordon A. Thomson, Esq., Bedeque House, including the costume of Mexican gentlemen, riding and hunting habits, spears, lassoes, and miniature models of the inhabitants (wax), &c., made up a collection highly interesting.



## STAND IV.

We observed, also, some reminiscences of the late war, in the shape of CRIMEAN TROPHIES, consisting of helmet, coat, sword, musket, bayonet, scabbard, boots, spurs, &c., which were secured as booty from the Russian slain, and kindly procured for the occasion by Mr. JOHN BELL.

Near this collection (and in appropriate proximity, we thought,) were a pair of stout boots (sent by M. H. M. JOHNSTON, Secretary), adapted for those who had suffered loss of the foot from frost-bite, all which, we were told, were manufactured for Her Majesty for the use of our disabled soldiers.

## STAND V.

Amongst the numerous PHILOSOPHICAL INSTRUMENTS on view was a beautiful portable Wheel Barometer, from Neill, Brothers, High Street, invented by Joseph Capps, Chemical and Philosophical Instrument Maker, 145, Millfield, Belfast. The inventor stated that this useful instrument can be conveyed, with perfect safety, to any part of the world. Also, a richly carved Oak Barometer, Self-Registering Thermometer, and a very neat Rotatory Steam Engine of glass. This latter delicate piece of workmanship may be made available in fumigating rooms, &c., during sickness.

## STAND VI.

Some modern articles of sanitary value, including a full size warm bath, heated by gas; Dr. Arnott's Ventilator for carrying off the vitiated air from close apartments; Sheringham's Ventilator for admitting fresh air, and distributing it, so as to avoid cold draughts; and Bailly's Patent Transparent Ventilator, for the same purpose; for insertion in the window; were forwarded by Messrs. MUSGRAVE, High Street, as important SANITARY REQUISITES. In connexion with these objects, some large drawings, illustrating the deficiencies of the old method of draining towns, and the advantage of the later improvements; also, a map of Belfast, showing its difficult position for efficient drainage, and proposed remedy, were exhibited by R. YOUNG, Esq., C.E. We noticed, besides, a large screen covered with architectural drawings of model buildings for the use of the poorer classes; and several of the excellent illustrations of the Parliamentary Health of Towns' Inquiry, which were presented by the President.

## TABLE VII.

Great interest was evinced during the evening in some MICROSCOPIC DEMONSTRATIONS, by Members of the Society, such as the polarization of light, and the circulation of the blood in the foot of the frog; and in some novel EXPERIMENTS, illustrating the physiological effects of strychnine by Dr. Hall's frog-test. None of these could be viewed with indifference even by those accustomed to similar spectacles, while to the uninitiated they were productive of surprise and amazement.

At another part of the Hall, we observed quite a crowd of eager spectators around one of Dr. Hutch-

inson's spirometers, adapted for measuring the "vital capacity" of the lungs.

## STAND VII.

A beautiful collection of models, illustrating the various forms of CRYSTALLOGRAPHY, with a variety of minerals corresponding, were tastefully displayed on a pyramidal arrangement of shelves, and attracted much attention.

## TABLE VIII.

These, and a valuable series of PATHOLOGICAL DRAWINGS and MODELS (in lime and wax), which were seen to great advantage upon the upper central table, were furnished from the private collection of the President, and in part from the Museum of the Society.

## STAND VIII.

Dr. MOORE, Belfast, contributed from his collection a number of PHOTOGRAPH PORTRAITS of the leading medical and surgical celebrities of Great Britain and Ireland, including Syme, Crampton, Good-sir, Mackenzie, Munro, and Simpson. A very valuable series of PATHOLOGICAL DRAWINGS, exhibiting the most prominent phases of disease, were on view by the same gentleman; and, on inquiry, we were informed that they were the production of his own truthful and powerful pencil.

## TABLE IX.

A selection of ANCIENT WORKS IN MEDICINE, (printed in the 16th century,) and a number of splendidly illustrated folios were here from the valuable library of the Belfast Medical Society. As a contrast, we observed an assortment of MODERN Medical treatises (date, 1850 to '58), exhibited by Mr. H. GREER, Bookseller, Belfast.

## STAND IX.

A very finely-executed set of coloured drawings, illustrative of zoological and botanical subjects (especially physiology and anatomy), were on view, by Professors DICKIE and STEWART, Queen's College. These drawings have been but recently procured, and were amongst the best of the extensive collection of which the College is at present in possession. They attracted marked and deserved attention from numerous spectators.

## TABLE X.

A few beautifully coloured and most life-like gutta-percha MODELS of THE HEART and THE EYE, and appendages, were exhibited by Dr. Murney, Demonstrator at Queen's College, and Mr. Browne, R.N., our able local ophthalmologist, and were the objects of marked attention.

## STAND X.

A very numerous collection of DRIED MEDICINAL PLANTS (indigenous) and a rare assortment of FERNS, were judiciously arranged upon screens; as also, a large number of coloured prints, illustrating the chief beauties of the AUSTRALIAN FLORA.

A selection of POISONOUS MEDICINAL PLANTS, together with some growing specimens in flower-pots, were likewise the contribution of the President.

## TABLE XI.

A small but rare collection of NATIVE MINERALS, osseous specimens, and a few antiquities relating to medicine, were furnished from the Museum of the NATURAL HISTORY SOCIETY, of Belfast.

## STAND XI.

A beautiful array of BOTANICAL and other DRAWINGS, from the pencil of Mr. A. NICHOLL, our accomplished townsman, taken during his residence in Ceylon, attracted marked notice. As specimens of tropical productions they are very valuable, while their artistic merit and truthfulness reflect the highest credit on their talented author. A study of the Banian tree, on Mount Lavinia, which, at mid-day, casts a shadow over four acres of ground, the clove plant, the Palmyra palm, and blossoms and fruit of various specimens, to be found in the forests of Eastern countries, made up the collection. The Palmyra palm represented in the drawing possesses interest from the fact, that its trunk is in the Belfast Museum, having been presented to that institution by Sir James Emerson Tennent. A study of the Talipot-tree, that wonderful production, producing a flower of upwards of thirty feet in height, was exhibited in another part of the room, from the same artist; one of the traveller's tree, a description of palm, the leaves of which are ranged in the shape of a fan. This tree is found only in places where no water is to be had, and it derives its name from the relief which it affords to travellers, for on cutting down one of the leaves, it gives out at least two gallons of water.

## STAND XII.

TO MR. MAGILL, Fine Arts Repository, Donegall Place (Agent to the London Stereoscopic Company), the Society was indebted for the exhibition of a series of very beautiful, and very carefully executed PHOTOGRAPHS—some framed, but the majority stereoscopic. The latter were in great requisition at a stand erected for the purpose of conveniently viewing stereoscopic pictures.

The following particulars, respecting this novel and attractive Instrument, may be interesting:—

The name of Stereoscope, from two Greek words, denoting "to see solid," is sufficiently suggestive of its purpose, as an instrument for the seeming creation of solid images, from the plane pictures of any object, or landscape, previously taken from two points of view, and corresponding with the retinal pictures taken from nature by our two eyes. The invention is due to Sir David Brewster, who, improving on a previous apparatus of Professor Wheatstone, named his instrument the Lenticular Stereoscope, from the lenses, whose novel application by halves and quarters, he has so successfully employed in its construction, and subsequently extended to the formation of *Photographic Cameras*, therein also providing for the necessities of the stereoscope. The instrument, which is of simple yet elegant construction, is in the shape of a rectangular pyramidal frustrum, with two eye-pieces, or short tubes, at two and a-half inches apart, and agreeing with the ordinary distance of our eyes. A side slit

over its lens is adapted to permit the introduction of plate or paper containing the pictures, and a flap door in one of the sides, to admit the light required for their illumination. Lenses of a peculiar form are inserted in the eye-pieces and are so placed, that the thin edges or arcs of each are turned inward. The effect of this arrangement, being such as is required for an improved binocular vision, is to assist the eyes to combine or superimpose the picture images they create, and at the same time to magnify them to a surprising degree. The magnifying power depends on the convexity of the lenses, while the displacement and ocular convergency which follows it is due to what is called the refracting angle, at that point the lens when either eye is applied.

Though but a discovery of yesterday, the stereoscope has already proved the prolific means of enjoyment to thousands, increasing to the possession of the instrument with every additional plate or pair of pictures they can procure, and ranging through every department of the grand and beautiful both ancient and modern architecture, among men, societies and nations, through all cities and all scenes. There is nothing, indeed, in art or nature which cannot seize, adapting it in befitting transparency for stereoscopic admiration. Not only has it brought within the reach of all such treasures as those of the Crystal Palace, but it has already reproduced characteristic style binocular views, of most exquisite finish and numberless variety, from Paris and Vienna—Rome, Naples, and Algeria—Athens, Venice, Florence and Pompeii; figures; Egyptian monuments of long-faded science and power; and from Swiss Alpine scenery of more picturesque and hoary grandeur. The painter, the sculptor, the naturalist, the artist, the signer, and the humbler draftsman—all acknowledge its magic power; and by its agency all that is glorious and grand in nature may be collected from every quarter of the globe, and nationalized to sweeten nature, to charm society, to educate youth, and to afford the most refined enjoyment around the domestic hearth.

The beautiful appearance of the Hall was very much enhanced by the tasteful disposal of a number of objects of statuary from the studio of Messrs. Venturelli, Corporation Street, consisting of casts: a beautiful set of ancient armour, most closely resembling the reality; a full size figure of "Bacchus," a full size figure of "The Neapolitan Girl playing the Tambourine;" Thorwaldsen's "Hebe;" "Prometheus chained to the rock;" "Helen and Paris;" group of "The youthful Champion;" "Will Tell, the hero of Switzerland;" "The Spartan Musketeer;" pair of "Huguenot Warriors;" graceful figure of "Napoleon III.," and a well executed Phrenological Head.

After completing the circuit of the room, viewing the varied array it presented, Members and Visitors stopped at a well-furnished refreshment table where tea and coffee and confections were liberally dispensed by Mr. Thomson, Donegall Place.

Shortly after nine o'clock,

Dr. MALCOLM rose, amid general marks of applause, and proceeded to deliver the following address.



# A D D R E S S

DELIVERED ON THE

## TERMINATION OF THE THIRD SESSION

OF THE

## BELFAST CLINICAL AND PATHOLOGICAL SOCIETY,

BY A. G. MALCOLM, M.D., EDIN.,

PHYSICIAN TO THE BELFAST GENERAL HOSPITAL, LECTURER ON PATHOLOGICAL ANATOMY, HON. MEMBER OF THE CORK MEDICAL AND SURGICAL ASSOCIATION, CORRESP. MEM. OF THE MANCHESTER MEDICO-ETHICAL SOCIETY, ETC., ETC.

THIS young but flourishing Society terminated its Third Session on 30th April, ult., with a *Conversazione*, to which a large number of distinguished non-medical guests were invited, including the Professors of Queen's College, and members of the learned societies and professions of Belfast and vicinity. The Meeting was held in the spacious Hall of the Corn Exchange, which was tastefully adorned for the occasion, and presented very much the appearance of a most attractive medical museum. At 9 o'clock, after the company had inspected the varied objects of interest, and partaken of refreshments, DR. MALCOLM, the President of the closing Session, was called to the chair, and proceeded to address the assemblage as follows:—

GENTLEMEN,—However much I might have wished to occupy, this evening, the position of a spectator or a listener, instead of the office which the partiality of my professional brethren has thrust upon me, I shall not shrink from fulfilling, to the best of my ability, the task which my situation, as retiring President of the Belfast Clinical and Pathological Society imposes; because I feel assured, that the same indulgence which has sustained me throughout the labours of the Session, which this evening terminates, will not be withheld on this—to me, at least—trying occasion.

I must say, that were my audience composed exclusively of my professional brethren, I should feel much more at ease, as the observations with which I would, under those circumstances, have occupied their attention, would naturally and genially flow, as from one medical mind to another, without the most distant risk of being misinterpreted or misunderstood. But, as it is, when I see around me gentlemen, eminently distinguished in other walks of knowledge—gentlemen, whom I may, in all truth, regard as the representatives of

science and literature in this city, whose proudest boast was, and is, that it contained such men—I cannot conceal the difficulty of the position I hold. I would, however, trust, that in the remarks which I purpose to offer this evening, I shall steer clear of deserving the imputation that the medical element has been too strongly infused to render them palatable to a mixed audience.

Before proceeding to the principal subject of this address, I desire to express my feelings of heartfelt congratulation to the members of our Association on its past progress, its present position, and its future prospects. My non-medical friends will bear with me, when I tell you I am proud—confessedly proud, of the standing of the Belfast Clinical and Pathological Society amongst the Medical Associations of Ireland. But three short Sessions have passed over our heads, and we already number in our ranks upwards of one hundred and sixteen Members. When, three years ago, its foundations were laid, I little thought how far beyond my first anticipations would be the result of the work. In that little space of time our Society has extended its operations into all parts of the province of Ulster; and its most distant members feel its improving influences almost as vividly as if they were resident, and enabled to join directly in its proceedings. This pleasing result of our weekly lithographed “abstract” is but a slight indication of what I trust may yet be accomplished, in the way of placing the resident and non-resident members more on an equality. The time may come when we may have our medical reporters, who will give our brethren at Letterkenny or Culmore full reports weekly of the doings and sayings of our medical parliament in Belfast.

Gentlemen, I am happy in having it in my power to state that, on last Saturday, we elected

the thirtieth new member for this session—an evidence at once of our strength and of an ever-growing interest in the objects of the Society. However anxious and doubtful I might have felt as to the issue of its early struggles, the experience of each successive session has more and more confirmed me in my impression that the stability of our Society is real, inherent, and permanent; and that its existence has filled a vacuum which had been forming for many years past, especially in the midst of our local brethren. In the attainment of its present triumphant position, I would be doing an injustice were I to omit making the most honourable mention of the labours of my predecessors in this chair. The first volume of our “Transactions” is a sufficient index to the ability and zeal of the one;\* and I have only to mention the name of Professor Ferguson to intimate to you the peculiar qualifications for the office which the other enjoys. (Hear, and cheers.) And need I add that, in your selection this day of my respected successor, there is afforded the best guarantee of a prosperous future. (Renewed applause.)

You will naturally suppose, gentlemen, that this language, in reference to our Society, savours rather much of the sanguine temperament. I confess I must yield to the soft impeachment. But I believe no new undertaking was ever yet projected into permanence without a large infusion of the element referred to amongst its promoters. And I know that those amongst my audience, who are acquainted with the incipient stage of this Society, will pardon me for any exuberance of feeling which the occasion has elicited.

Gentlemen, the guests of the Belfast Clinical and Pathological Society, permit me to wish you a hearty welcome to our second *conversazione*. Many of you will, doubtless, recognize amongst the various objects of interest which are this evening displayed before you, some which will remind you of a similar occasion this time last year; and, from what I know of the general impression which was expressed on the last occasion, I am not apprehensive as to the result of our present efforts to form a meeting which will be not altogether unattractive to the distinguished *savans* whom I see around me. On this occasion, however, it is my desire to draw your particular attention to the elements of advanced science, which may be gleaned by an inspection of the contents of this Hall. One impression which such examination must, I think, elicit in the minds of all, will be that of surprise; for you will meet with here, on almost every table, objects of scientific interest which do not seem, to a non-medical understanding, to be very intimately associated with medical practice. On the contrary, the devotee of pure science, who had never

so much as opened a medical volume, would recognize in the great majority of the objects here presented, his most familiar acquaintances. Now, when I have shewn you that the medical mind considers all these same objects as equally interesting to him, it will not be too much to infer that there is an indissoluble connexion between science and true medicine. But I go further, and I state without any hesitation, that the progress of medicine has advanced, and will continue to advance, in a direct ratio with the advancing strides of science. We do not, therefore, consider ourselves as diverging from the path of strict professional duty, when we issue our annual invitations to many whose knowledge of medicine is limited to the painful experience of the *armamenta medicina*. On the contrary, in summoning you to our annual gathering, and in placing before you on these occasions objects of equal interest to us both, we do so with a view to impress upon one and all the grand presiding fact, that science, in all its divisions—in all its apparently varying characters—call it by what title you will—is one and the same—the discovery and interpretation of the laws of our common Creator.

Gentlemen, I deem the present a fitting occasion for illustrating this truth. The subject admits of endless amplification. It is not my intention, however, to do more than touch the salient points; for this will be quite sufficient to render manifest the validity of the proposition, that medical progress only became real when science became the pioneer and guide of medicine. Like to the benighted traveller, who walks on and on in the vain hope of reaching his destination, but who, in reality, has lost the true path, so medical knowledge, in the early times, endeavoured to advance by the changing light of *ignes fatui*, which successive hypotheses had engendered from time to time. It was reserved for science to light the traveller on his way, to dissipate the clouds which hovered o’er the road to truth, and to remove, with a single touch, obstacles to onward progress which seemed colossal to a pre-scientific age.

The progress of human knowledge, in any of its numerous departments, seems, in my view, to include three stages. In the earliest period, the mind of man was bewildered with the number, variety, and extent of the objects in nature submitted to his contemplation. Man, under such circumstances, may be compared to a child; his observing powers are over-taxed, and his perceptions are necessarily intermixed, and almost shrouded in the inward imaginings which the objects suggest. He is at this time incapable of true observation. The immensity overwhelms his feeble understanding; and in the attempt to describe what comes within the range of his senses, he loses himself in the vain endeavour to grasp the entire phenomena pre

\* Dr. T. H. Purdon.



sented to him. In no department of human knowledge is this more evidently manifested, than in that of medicine. Truly, may the first steps here be deemed, the impress of conjecture and superstition. It seems to us of the present day passing strange, that the early writers in medicine displayed such gross imperfection with regard to the structure and functions of the human frame. Is it not surprising that for a long period subsequent to the time of Hippocrates, the veins and arteries were undistinguishable; that nerves, and sinews, and ligaments, were designated indiscriminately by the same terms; that Aristotle's arteries contained only air, which the windpipe conveyed from the atmosphere to the heart, and at a later period, in the time of Galen, that the veins were supposed to originate in the liver, and the arteries in the heart, and that that large muscle which separates the thoracic from the abdominal cavity was, in some way or other, connected with mental emotions? It does seem strange, indeed, that even up to the fourteenth century of the present era, the only movement which the blood was supposed to possess was that of flux and reflux, and it was only about this time that any rational ideas were beginning to be entertained as to the action and uses of the valves which are observed at the origin of the two great arterial trunks, those situated between the chambers of the heart and the delicate semivalves of the veins. Does it not, I say, strike us with amazement that Berengarius and Vesalius were the first to show the instability of the ancient doctrine, that the intermixture of the two kinds of blood, which the most ordinary ocular demonstration was sufficient to discriminate; was effected by means of a filtering process through the *septum ventriculorum*, or the partition between the right and left chambers of the heart? But it is, perhaps, still more curious to reflect, that the very first step towards a solution of the great problem of the circulation of the blood, sprung directly from the agitation on the question, at this time widely debated in the medical world, viz. if the septum (referred to) be, as was proved, impervious, where can the meeting of the arterial and venous blood be accomplished? And it is certainly a fact, of equal interest, that the individual who had the honour of proposing a clue to remove the difficulty, was no other than a theological writer, the unfortunate Servetus, who was the first to suggest the transit of the blood *through the lungs* from the right side of the heart to the left. Here I must diverge a little to state, that I am quite aware that Servetus' claims as a discoverer have been questioned, and that his views have been deemed, by some, as a mere hypothetical proposal for getting over a difficulty; but a reference to some passages from his work, entitled, "*Christianismi Restitutio*" (of which, by the bye, it ap-

pears only two copies have come down to us), abundantly proves that he had *reasoned* upon the facts presented to him, and inferred the truth therefrom. Some short time later, Andrew Cæsalpinus, having observed the swelling of the veins *below* ligatures, bethought him that the blood must have a movement in these vessels, in a direction from the extremities towards the heart; and this idea was still further corroborated by Fabricius, who, having more carefully examined the disposition of the valves of the veins, which Sylvius had previously discovered, ascertained that they were all turned towards the heart, and thereby became obstacles to the return of the blood to the extremities. Here was the first light shed upon the nature of the general circulation; and it does seem an object of great wonder to us at the present day, that it was reserved for a later than Fabricius to unfold the true character. Reasoning upon the facts thus ascertained, and believing that the movement of the blood in its vessels was fully established, HARVEY, in the year 1616, conceived the happy idea of instituting a series of experiments to determine the exact course of the blood. He compared the different effects, when a ligature was thrown round a vein, and an artery; and he placed the results in conjunction with the known direction of the valves, and, in a comparatively short time, was enabled to satisfy himself that the blood is impelled by the left side of the heart, in the arteries, to the extremities, and thence returns by the veins into the right side of the heart; and he further proved, that the pulmonic circulation is but a continuation of the larger. In this manner he gave a complete theory on the circulation.

Now, let us pause a moment to inquire how it was that this, the most important physiological discovery up to his day, was effected. It was impossible for Harvey to *see* the current in its entire course. It is, therefore, an inference—but an inference so based upon a series of acknowledged facts that the demonstration becomes complete. Harvey was asked, on one occasion, What induced him to think of the circulation? And he replied, that when he took notice that the valves in the veins, in so many parts of the body, were so placed that they gave a free passage to the blood towards the heart, but opposed the passage of the venal current the contrary way, he was incited to imagine that, so provident a cause as nature had not placed so many valves without design; and no design seemed more probable than that the blood should be sent through the arteries and return through the veins, whose valves did not oppose its course that way. Whewell, in commenting upon this discovery, states that Harvey must have possessed clear views of the motions and pressures of a fluid circulating in ramifying tubes to enable him to see how the position of valves, the pul-

sation of the heart, the effects of ligatures, of bleeding, and other circumstances, ought to manifest themselves in order to confirm his view; and that he had referred to a multiform and varied experience for the evidence that it was so confirmed. The simple fact is, the *elements* of this great discovery were previously well and generally known. Fabricius, as I have observed, was upon the very verge, yet missed it. He supplied, however, the last link in that chain of evidence which put Harvey upon the track. Harvey discovered the circulation, not in the manner that a new mineral or a new plant might be casually observed for the first time, but solely as an inductive truth. He had the same facts to deal with as many of his predecessors. In their hands they were isolated, unproductive, and non-suggestive. He was the first to place them in relation, harmony, and mutual dependence. And, in the true philosophic spirit of Baconian reasoning, he cast aside the unsupported imaginings of ancient medicine, seized the facts actually observed, constructed others with his own hands, and raised that immortal structure which the progress and the test of time, have only tended to consolidate. Harvey was a true disciple of nature. Whatever, before his time, had had her sanction, he was satisfied with. He himself questioned her eagerly, and carefully noted her replies; and, though totally and necessarily unacquainted with the modern facts of natural philosophy or physiology, he unveiled to an astonished world the beauty and simplicity of the Creator's design.

This reference to one of the great eras in physiological history leads me to my second proposition, that the second stage in any department of knowledge is distinguished by the prevalence of a rational observation, or, in other words, the acquisition of philosophic truth by a process of inductive reasoning.

Though Bacon was the first to insist upon this particular method of investigation, though he was the first to throw this yoke upon the ardent labourers of the mental world, still we find in the circumstances connected with the growth of the grand discovery to which I have just drawn your particular attention, there is abundant evidence to prove that Harvey had anticipated the very system with which the name of Bacon will be for ever associated.

As another memorable instance of the power of rational observation, I may here allude to the splendid discoveries of Sir C. Bell, and later still, of Dr. Marshall Hall. In this particular department of physiological research, the conjectural age seems to have been unusually protracted. Galen taught that the nerves are the channels of perception, but he, and for a long time his successors, not unfrequently confounded nerves and tendons. The division of the nerves according to their connexion with the nervous centres,

the examination of the different ganglions or knots which occur upon them, and the unravelling of the brain according to its proper structure, was the work of Willis in 1664. But all this came far short of the views which Bell and Hall for the first time propounded to the world, and these, be it remarked, were simply the result of the most careful, but at the same time ordinary observation and experiment as a basis, and of a calm judgment upon the data thus laboriously established. It must be remembered, however, that there is a considerable difference in the character of these two discoveries. Sir C. Bell dissected the nervous ramifications, and at the conclusion of his work was enabled to say with the utmost confidence, this is a nerve of motion, and this other is a nerve of sensation.

On the other hand, Marshall Hall predicates certain functions of a portion of the nervous system, based chiefly if not entirely upon clinical observation, and the result of systematic experiment. The object of both, nevertheless, is ultimately attained in the same way.

In this and the preceding example, it will be observed, that most important advances were made in medical knowledge without other aid than what a well-regulated observation was sufficient to impart. But even these, great undoubtedly as they are, were but a small portion of that knowledge of the circulation and the nervous system which even the merest tyro of the present day possesses. We are now cognizant of the most intimate nature of the vital fluid, and its actions in the minutest vessels, and also of the nervous substance wherever situated.

These considerations bring me to the last stage through which our own knowledge has passed, namely, that which is characterized by the result of rational observation, aided by scientific instruments. I allude especially to that vast increase of knowledge which is mainly due to the careful use of the microscope, the employment of chemical analysis, and the result of electric agents, in health and disease. Wherever these agents have had the proper field to labour in, the yield has been unprecedented; though it must be admitted that all are as yet in an infant condition, but such as promise for the future the brightest prospects. (Hear.)

It were totally impossible, in the brief space which I intend to occupy, to refer in a particular manner to these immense results. I shall therefore, confine myself to a notice of that new world which the revelations of the microscope have unfolded to the medical practitioner. We are accustomed to speak of the immensity of space; and, indeed, the successive improvements in the means for discerning the countless worlds that surround us have even yet barely enabled us to possess the faintest idea of the infinity of Providence. When astronomers tell us that stars are visible, by means of instru-



ments, whose light must have occupied a period of many hundred years in traversing that vast interval of space between them and us, we cannot but feel the awfulness and majestic sublimity of the "ways of the Almighty." But if such be our impression when contemplating nature upon her grandest scale, let us remember that there is another extreme wherein we have worlds, which, though invisible to unaided vision, present a perpetual succession of objects to excite our wonder, and teach us the great truth of the unfathomable depth of the wisdom of the Infinite. In the successive improvements from the time of Seneca, who, in the first century, wrote for the first time that small and indistinct objects become larger and clearer in form when seen through a globe of glass filled with water, down to the present year, when objects are magnified hundreds of thousands of times, a succession of improvements has enabled us to state, that as each step made towards the present perfection of the instrument has opened up new conditions of existence unknown to previous observation, so there is every reason to believe, that we are still far from being in possession of the highest capabilities which the instrument is calculated to afford. Just as the hazy nebulae in the time of Herschel have been clearly analysed by the six-feet parabolic speculum of Lord Rosse, so it is not unphilosophical to assume, that there are still wonders in the microscopical existence which some future microscopist will be yet enabled to discern. (Hear.)

In regard to the influence which has been felt, through the whole domain of physiology, by the use of the microscope, I believe I may say, without fear of contradiction, that it has been the means of completely revolutionizing the knowledge of animal structures which prevailed prior to its introduction. What modern chemistry has done in elucidating the composition of the materials concerned in secretion and nutrition; what the stethoscope has effected towards the detection of thoracic disease; what our knowledge of electricity has enabled us to predicate concerning the phenomena of the nervous system, have, I would say, been far excelled by the mass of facts in anatomical, physiological, and pathological knowledge, which is due to the scientific use of that queen of instruments, the microscope.

We may date the commencement of micro-anatomical study, in the year 1660, when the celebrated Marcello Malpighi commenced his inquiries upon the blood, which have been the foundation of all subsequent knowledge upon this subject. It is recorded that he was the first individual who was favoured with that most wonderful sight—a view of the capillary circulation in the living animal; a spectacle which even at the present day, and though often observed, ever excites our greatest wonder. Indeed we can scarcely imagine

the intensity of the emotion it must have originally called forth in the mind of the celebrated discoverer. It proved in him the strongest stimulus to extended research; and we find that on the nature of almost every tissue, in both the animal and vegetable world, he has thrown so much light, and by means of what would be now regarded as very imperfect instruments, as to have anticipated much of the boasted knowledge of many of his successors.

I must pass over the names of Leuwenhoeck, whose untiring industry in minute anatomy the Transactions of the Royal Society sufficiently establish; also the names of Ruysch, Sömering, Prochaska, and Lieberkhun, all of whom have left imperishable names in the history of microscopic anatomy. I can also but merely mention the name of our celebrated countryman, William Hewson, in whose experimental inquiries, the results of his anatomical investigations were so accurate, notwithstanding the imperfection of the means at his command, that subsequent observers have been only enabled to confirm them.

The "observations" hitherto referred to, it must be remembered, were made by means of unachromatic instruments, and no steps were taken to remedy this great defect, till about thirty years ago, when the first compound achromatic was presented to the French Academy of Sciences, and shortly afterwards, in 1826, the first of this kind was constructed in this country. Amongst those to whom we are indebted for this highly important improvement, without which, indeed, the best compound instrument would give less perfect results than the commonest single lens, must be mentioned the names of Dr. Goring, Dr. Hodgkin, and Mr. Lister. This last-named gentleman is, perhaps, the most deserving of renown, for his combination of lenses, constructed in 1829, has, to use the words of Mr. Quekett, "tended more than any other to raise the compound microscope from its primitive and almost useless condition, to that of being the most important instrument ever yet bestowed by art upon the investigator." Now, who think you was this Mr. Lister? A London merchant, who, in the midst of a large and pressing business, was yet enabled, by his great talents and untiring energy, to lay the foundation of the true principles of achromatism, and in his spare moments to carry those principles into practical realization.

There have been many instances in the history of discovery of similar manifestations of genius in the persons of those who were never permitted to indulge in "learned leisure." Indeed, it seems to have been a favourite system which nature has ever adopted, to disclose her secrets to those who have laboured in the pursuit of truth amidst the greatest obstacles and difficulties; and this fact, for illustrations of

which no one need be at a loss in the history of British science, should be an encouragement to all who enjoy the taste for scientific research in all the varied occupations of the world. (Hear.) There is no business so engrossing as not to leave many valuable moments for calm reflection or experimental inquiry, and no one can predict what may be the result in any individual instance of a devotion to some particular branch, of these leisure hours.

The important improvement in the instrument to which I have just referred, it is to be presumed was not without its immediate practical results. Every object previously observed was subjected to the new test, and thus many of the errors of previous imperfect observations were corrected, and novel phenomena for the first time established. Amongst this latter class none has exceeded in importance the new facts due to the labours of Schleiden in the vegetable, and Schwann in the animal kingdom. Their researches have eventuated in the establishment of, probably, the greatest attempt at generalization ever made in physiological science: I allude to the "cell theory;" a theory which owes its origin to the suggestions which sprung out of a contemplation of the cells of cartilage, and a comparison of this observation with what was previously noticed in the vegetable world. It is difficult to conceive what may be the result of further developments of this grand theory, but I have no hesitation in stating my belief, that if we are ever to possess any more distinct knowledge than we already enjoy as to the growth of tissues, or the intimate phenomena of secretion and assimilation, it will come through the instrumentality of some development of this theory.

I might here appropriately draw your attention to some of the leading advantages which the use of the microscope offers to the medical practitioner. I might state what important aid in the detection of disease and its stages it can supply, and also what indications of treatment it affords; but recollecting the mixed character of the audience I have the honour to address, I shall consult my own convenience and yours by omitting particular mention of it altogether, further than to allude to the striking utility which this instrument has displayed in the detection of poisons and the adulteration of food.

It will be in the recollection of many that a few years ago a very complete investigation was instituted in London, by the Editor of the *Lancet*, in regard to the latter, the result of which has been to draw the attention not merely of the public, but also of the authorities, to this ruinous evil, an evil which presses too most severely upon the most unprotected classes of society. It has been fully ascertained that the effect of inordinate competition in the sale of articles of diet has been to lead to the *system-*

*atising* of many forms of adulteration, the detection of which was hitherto almost impossible, until the aid of chemistry and the microscope was resorted to. And well did they accomplish the object. Nothing was too complex or too minute for their united analysing power. This is more especially the case in reference to vegetable productions, which the most advanced knowledge of chemistry alone was frequently unable to satisfactorily distinguish, when mixed up in various pulverulent combinations. The nature of these compounds, the microscope, in the hands of Quekett, Hassall, and Letheby, has established in a single trial almost without the slightest risk of failure. The time is, therefore, fully arrived when legislative interference is imperatively called for, to protect the masses of the community from becoming the prey of fraudulent dealers, and when every constituted authority should deem at least as necessary as the protection of property, the maintenance of the lives and health of the community. The subject of poisoning has lately presented itself to us in a fearfully revolting aspect. (Hear.) The rapid succession of these horrible cases recalls to our memories the records of ancient times, when scarcely any public character was safe. Fortunately, however, we, in the present day, are not without redress. I am glad to have it in my power to say, that the detection of almost every animal and vegetable poison is now so sure, that there is little chance of a failure of evidence on this score. Strychnine and hydrocyanic acid, hitherto deemed inaccessible to *post mortem* tests, in consequence of the minuteness of the fatal dose, are now readily detected a considerable time after death. I can refer you to some experiments which will be submitted to you in the course of the evening, which will abundantly satisfy the most sceptical as to the practicability of this statement. It is by such triumphs of science that life is really rendered secure. The fear of death under the old system was shorn of half its terrors by the strong impression on the mind of the assassin that the law could not be enforced from want of conclusive evidence; so that in this respect, as well as the other points of view which I have brought under your notice this evening, well may it be said that the progress of science in general is fraught with the blessing of perpetually increasing prosperity to the whole human race, both as individuals and as communities. (Hear, hear.)

As I have set out with asserting the indispensable connexion between general and medical science, so must I conclude with reiterating the spirit of my proposition. There is none amongst us here this evening, who could not, I feel assured, assist in the great work of human amelioration—all, I trust, are more or less acquainted with some branch of scientific research; none of us is so absorbed in the duties of our respective callings, as not to have some



moments of leisure daily, to occupy in pursuing some scientific object; and none, I am satisfied, can direct his energies assiduously and continuously on any one worthy object of study, without being, sooner or later, enabled to educe from amidst the multitude of interesting phenomena which his pursuit will elicit, *some practical truth hitherto unobserved*. Well, then, this is the first great step in discovery—the foundation on which, when aggregated, the superstructure of a “Law of Nature” may be ultimately erected. Here, then, we have an ennobling object to stimulate our endeavours after scientific truth. Well has it been said by Galen of old, that “the study of physiology is a hymn in honour of the Deity.” But he might, with similar effect, have stated the same of the study of nature in general. There need be no rivalries amongst *her* votaries: their reward is in the study itself, and the reflection that they are agents in the hands of Providence for disseminating “*His* praise through every land.”

And now, gentlemen, before I resign my trust into the hands of my respected successor, whom the voice of the Society at large has this day elected to the honourable office of its President, I would ask the members to accept of my very best thanks for the support which they have afforded in strengthening and consolidating the Society during the past session. Never were meetings better attended than our weekly reunions at the General Hospital; never was displayed so much enthusiasm in the transaction of the regular business, which engaged us from week to week; and never, I believe, was there a more auspicious prospect for the session which is now about to open. It is, gentlemen, my most earnest wish that you will, one and all, continue to cherish this common bond of union established for purely scientific purposes, and the common benefit of our profession and the public at large. May the spirit of improvement and

of progress never die within us, but, on the contrary, may we continue to emulate each other in striving after the acquisition of that rational scientific knowledge of medicine, which, when chastened by practical experience, is the surest test of the accomplished practitioner, and the best safeguard of the common weal.

The learned Doctor resumed his seat amid general applause.

DR. MALCOLM then vacated the chair, which was taken by DR. M'GEE, the President elect.

MR. BROWNE, Senior Vice-President, moved, and DR. STEWART V.P. seconded, a vote of thanks to DR. MALCOLM for the learned address that he had delivered.

DR. M'GEE put the motion, which passed with acclamation, and in conveying the thanks of the meeting to the Ex-President, said, that the approbation of such a meeting was no mean tribute, and, he should add, that never, in his opinion, were thanks better deserved. (Hear.)

DR. MALCOLM acknowledged the compliment in appropriate terms.

The assembly then rose and again dispersed through the room, inspecting the several collections, and the *conversazione* ended about eleven o'clock.

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#### OFFICE-BEARERS FOR THE SESSION 1856-7.

*President*—Dr. M'Gee.

*Vice-Presidents*—Mr. Browne, R.N.; Dr. Stewart; Professor Stewart; Dr. M'Mechan (Whitehouse); and Dr. MacLaughlin (Lurgan).

*Ex-Officio V.P.s.*—Dr. Purdon, Professor Ferguson, and Dr. Malcolm.

*Council*—Drs. Murney, Dill, Moore, Pirrie, Patterson, and Young (Holywood).

*Analytical Committee*—Drs. Purdon, Malcolm, Murney, and Cumming.

*Treasurer*—Dr. Halliday.

*Rec. Secretaries*—Dr. Ross and Mr. H. M. Johnston.

*Gen. Corr. Sec.*—Dr. Malcolm, 81, York-street, Belfast.

$$\frac{11-88}{2.5} = \frac{77}{2.5}$$